REMARKS

Claims 1-23 are all the claims pending in the application.

Claims 1, 2, 4, 6, 7, 12, 13, 15, 17, 18 and 21 are rejected under 35 U.S.C. § 102(a) as being anticipated by Hwang (WO 00/74275). Claims 3, 10, 14 and 23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hwang in view of Rune (US 2003/0012173). Claims 5, 8, 16 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hwang in view of Bluetooth Specification (XP-002214950). Claims 9 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hwang in view of Rinchiuso (US 2002/0090004). Claims 11 and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hwang in view of Uchida (US 2001/0055973).

The present invention relates to a wireless communication apparatus, a method thereof and a wireless communication system capable of transmitting and receiving data via a plurality of channels in a Bluetooth system.

Hwang relates to an apparatus and method for implementing handoff when a mobile station travels from a cell of an async mobile communication system to a cell of a sync mobile communication system.

Rune relates to a method for coordinating network nodes in a network. The method includes informing a first slave node, by a master node, of a first period to scan for inquiry messages and informing a second slave node, by the master node, of a second period for scanning for inquiry messages.

The Bluetooth Specification relates to the specification of the Bluetooth system.

Rinchiuso relates to scheduling and allocating data transmissions over communication channels within a broad-band communications system.

Uchida relates to a mobile unit communication system and a mobile unit communication method that can increase the efficiency of an assignment of a channel of a communication in which a data having a large data amount is transmitted at a high speed.

Applicant respectfully traverses the claim rejections, as set forth below.

For the rejection of claims 1, 2, 4, 6, 7, 12, 13, 15, 17, 18 and 21 as being anticipated by Hwang, Applicant submits that Hwang fails to teach or suggest all of the limitations of the claims. In particular, Hwang fails to disclose the controller of claim 1, which recites a controller for obtaining a number of transmittable channels of a counterpart wireless communication apparatus that the wireless communication apparatus intends to communicate with, and processing to transmit the data through the transmitting portion according to the obtained number of transmittable channels. The Examiner points to page 8, lines 18-35, as allegedly disclosing this feature of the claim. The cited excerpt describes a controller 101, which controls an operation of individual channel generators 102-108, processes a message which is transmitted and received in a physical layer of a base station, and communicates messages with the upper layer. By contrast, the cited excerpt does not disclose a controller which obtains a number of transmittable channels of a counterpart wireless communication apparatus that the wireless communication apparatus intends to communicate with, or a controller which transmits data through the transmitting portion according to the obtained number of transmittable channels. Obtaining a number of transmittable channels and transmitting data according to the obtained number of transmittable channels are not even suggested in the cited excerpt.

Although the cited excerpt mentions assigning or releasing supplemental channels, Applicant submits that such assigning of supplemental channels does not correspond to the recited feature of obtaining a number of transmittable channels of a counterpart wireless communication apparatus that the wireless communication apparatus intends to communicate with. The reference is ambiguous on this point. Such ambiguity cannot be held against the Applicant.

Therefore, claim 1 and its dependent claims 2 and 4 are not anticipated by Hwang.

Claim 12 and its dependent claims 13 and 15 are not anticipated by Hwang for reasons analogous to those for claim 1.

With further regard to claims 2 and 13, Applicant submits that Hwang fails to teach or suggest that when the counterpart wireless communication apparatus receives the data through a plurality of frequency channels, the controller transmits the data through the plurality of frequency channels to the counterpart wireless communication apparatus. Instead, Hwang is silent regarding the controller 101, when a counterpart wireless communication apparatus receives data through a plurality of frequency channels. Hence, claims 2 and 13 are allowable for this additional reason.

With respect to claim 6, Applicant submits that Hwang fails to teach or suggest a controller for dividing the data for transmission by a number of frequency channels, and processing to transmit the data to a counterpart wireless communication apparatus that the wireless communication apparatus intends to communicate with. The Examiner refers to the same excerpt noted above in relation to claim 1, i.e., page 8, lines 18-35, as allegedly disclosing this feature of claim 6. Applicant respectfully disagrees. Instead, the cited excerpt discloses a

controller 101, which controls an operation of individual channel generators 102-108, processes a message which is transmitted and received in a physical layer of a base station, and communicates messages with the upper layer. The excerpt is silent with regard to dividing the data for transmission by a number of frequency channels. Thus, claim 6 and its dependent claim 7 are not anticipated by Hwang.

For claims 17, 18 and 21, Applicant submits that these claims are not anticipated by Hwang for reasons analogous to those for claim 6.

Regarding the rejection of claim 3, 10, 14 and 23, Applicant submits that these claims are allowable over the prior art, at least because Rune fails to make up for the above-described deficiencies of Hwang. Furthermore, claims 3, 10 and 14 are allowable due to their dependence from claims 1, 6 and 12, respectively.

Also, the Examiner admits that Hwang does not disclose the feature of claims 3, 10 and 14 of when the wireless communication apparatus is operated as a master, the controller obtains the number of transmittable channels of the counterpart wireless communication apparatus, by performing an inquiry operation with the counterpart wireless communication apparatus. Instead, the Examiner applies Rune for this teaching. However, Rune fails to make such a disclosure. The Examiner cites paragraphs [0006]-[0008], [0050] and [0052] of Rune in this regard. The cited paragraphs describe communication between piconets in a scatternet and the use of INQUIRIES in a piconet. Rune discloses that the INQUIRY procedure enables a Bluetooth unit to discover which units are in range and what their device addresses and clocks are. See paragraph [0010]. Thus, the INQUIRY described in Rune fails to correspond to the recited feature of claims 3, 10 and 14 of when the wireless communication apparatus is operated

as a master, the controller obtains the number of transmittable channels of the counterpart wireless communication apparatus, by performing an inquiry operation with the counterpart wireless communication apparatus. Therefore, claims 3, 10 and 14 are allowable over the prior art for this additional reason.

Claims 5, 8, 16 and 19 are rejected over Hwang in view of the Bluetooth Specification. Applicant submits that these claims are allowable, at least because of their dependence from claims 1, 6, 12 and 17, respectively, and because the Bluetooth Specification fails to make up for the deficiencies of Hwang.

Moreover, the Examiner concedes that Hwang fails to disclose the feature of claims 5, 8, 16 and 19 of while transmitting the data in parallel, the controller applies a frequency hopping pattern to the plurality of additional channels, corresponding to a frequency hopping pattern applied to the basic channel. Instead, the Examiner points to the Bluetooth Specification. However, as described in the Applicant's specification (p. 2, line 20 - p. 3, line 2), in the Bluetooth system, master devices and slave devices communicate with each other in series only through one channel. Thus, the Hwang/Bluetooth Specification combination fails to teach or suggest that while transmitting the data in parallel, the controller applies a frequency hopping pattern to the plurality of additional channels, corresponding to a frequency hopping pattern applied to the basic channel. Accordingly, claims 5, 8, 16 and 19 are allowable over the prior art for this additional reason.

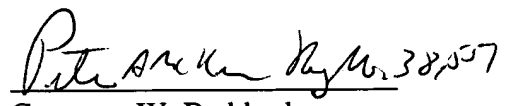
Applicant submits that claims 9 and 20 are allowable over the prior art, at least because of their dependence from claims 6 and 17, respectively, and because Rinchiuso fails to make up for the deficiencies of Hwang.

For the rejection of claims 11 and 22 over Hwang in view of Uchida, Applicant hereby files a certified English translation of the priority document to perfect the priority of the present application, thereby removing Uchida as a reference. This is the case, because the priority document of this application was filed on February 3, 2001, which is prior to the filing of Uchida on June 26, 2001.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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